

## PATENT ABSTRACTS OF JAPAN

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(21)Application number : 08-050264 (71)Applicant : FUJITSU LTD  
 (22)Date of filing : 07.03.1996 (72)Inventor : TAKECHI SATOSHI  
 KODACHI AKIKO  
 TAKAHASHI MAKOTO

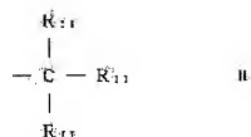
(30)Priority  
 Priority number : 07162287 Priority date : 28.06.1995 Priority country : JP

## (54) RESIST MATERIAL AND RESIST PATTERN FORMING METHOD

## (57)Abstract:

PROBLEM TO BE SOLVED: To obtain a resist material having high transmittance to various radioactive rays including excimer laser and superior dry etching resistance and suppressing cracking at the time of development and the peeling of a pattern by incorporating a specified acid-sensitive compd. and an acid generating agent which generates an acid when exposed with radiation.

SOLUTION: This resist material contains an acid-sensitive compd. contg. structural units each having an alkali-soluble group protected with a part contg. an alicyclic hydrocarbon group represented by formula I, II, etc., and an acid generating agent which generates an acid when exposed with radiation. The alkali-soluble group is released by the generated acid and makes the acid-sensitive compd. alkali-soluble. In the formulae I, II, each of R1 and R11 is optionally substd. straight chain or branched chain 1-4C alkyl, Z is plural atoms required to complete alicyclic hydrocarbon in combination with C and at least one of R11's is alicyclic hydrocarbon.



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特開平9-73173

(43)公開日 平成9年(1997)3月18日

(51) Int.Cl. **機械記号** **序内整理番号** **F I** **技術表示箇所**  
**G 03 F** **5 0 1** **G 03 F** **7/039** **5 0 1**  
**7/004** **5 0 3** **7/004** **5 0 3**  
**H 01 L** **21/312** **H 01 L** **21/312**

審査請求 未請求 請求項の数20 ○L (全 48 頁)

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(33)優先権主張国	日本(JP)	(74)代理人	弁理士 石田 敬 (外2名)

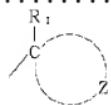
(54) 【発明の名称】 レジスト材料及びレジストパターンの形成方法

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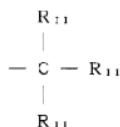
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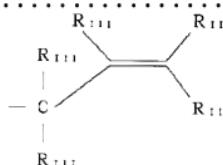
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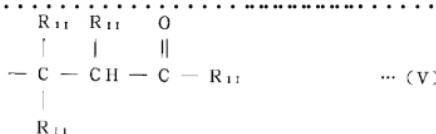
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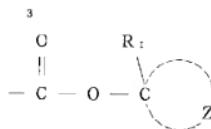


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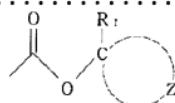
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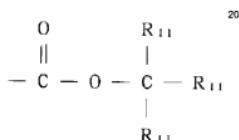


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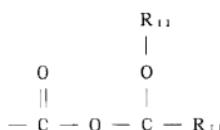
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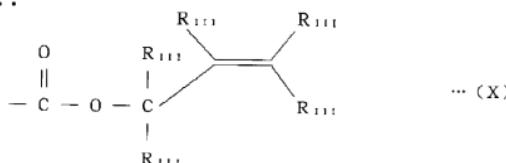
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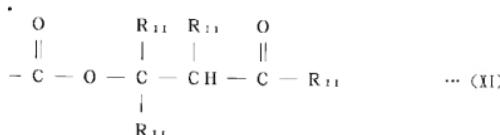
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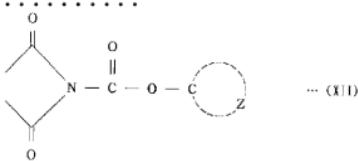
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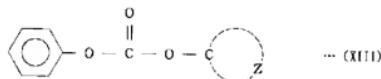
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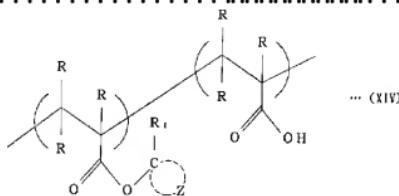
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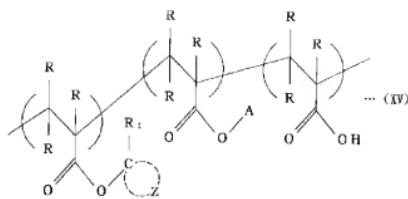
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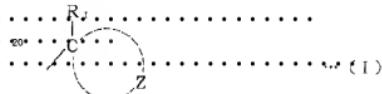
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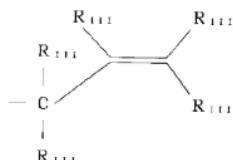


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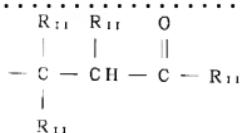
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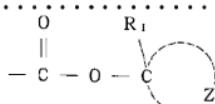


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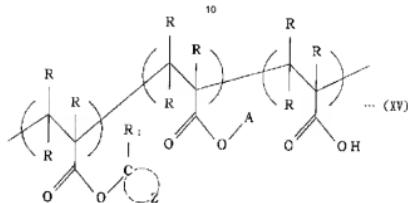
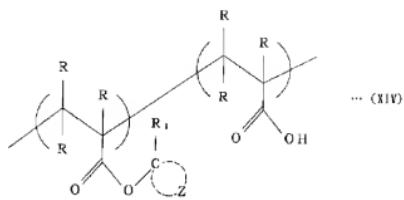
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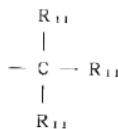
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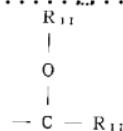
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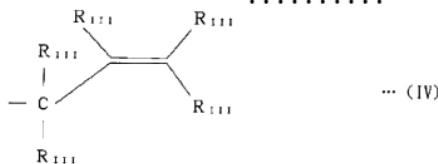
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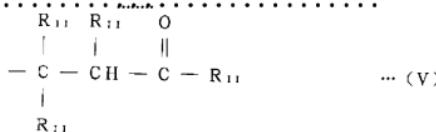
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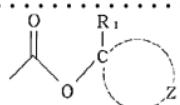
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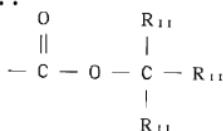


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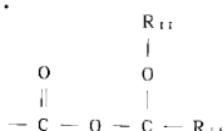


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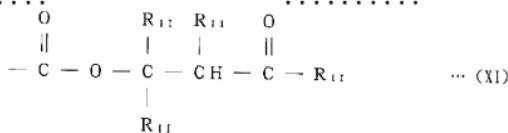
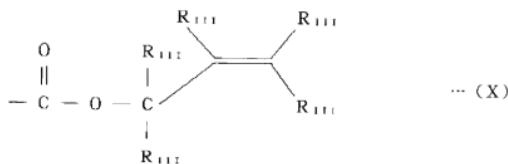


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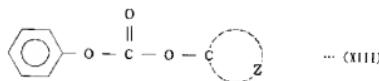
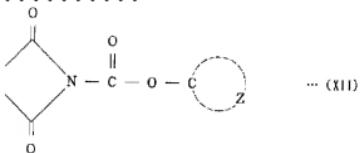
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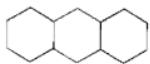
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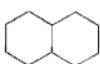
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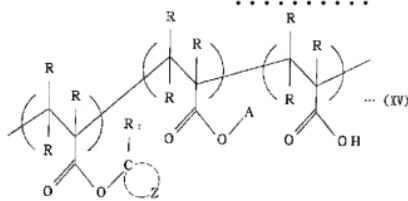
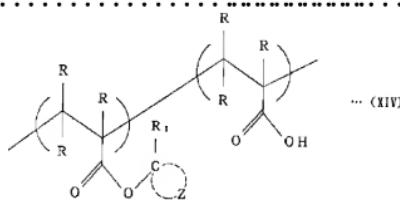


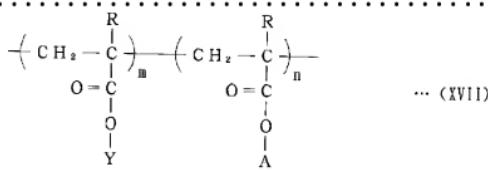
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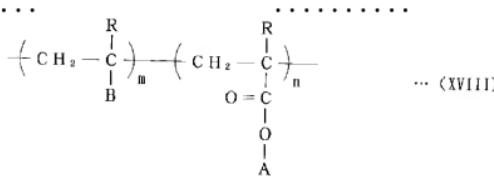
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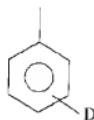
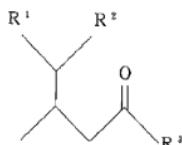
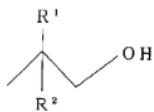
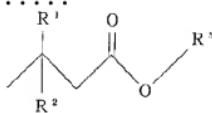




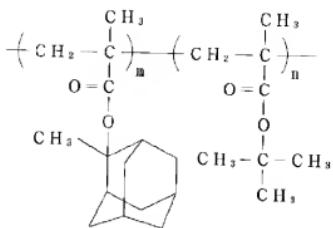


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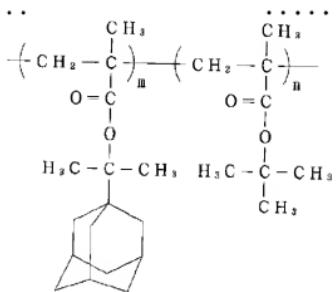




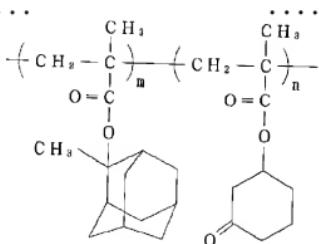
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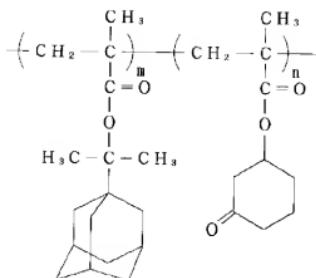
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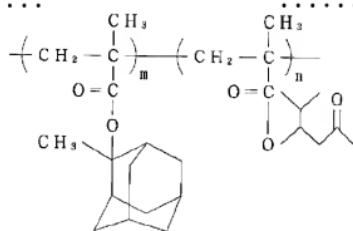
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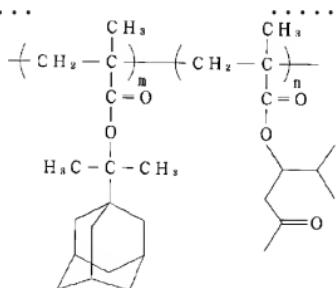
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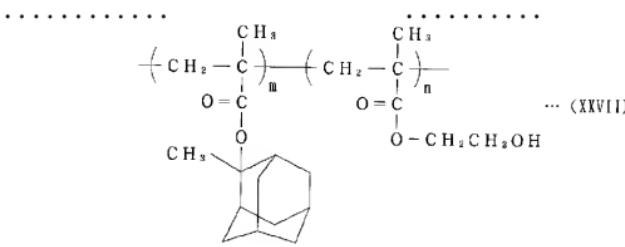
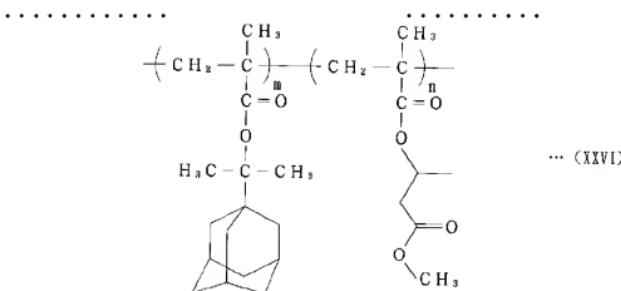
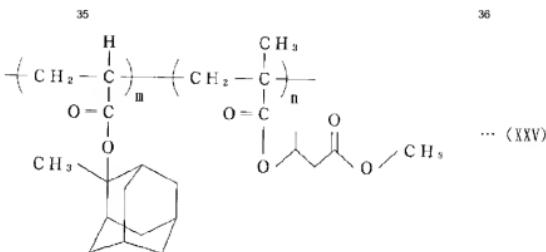


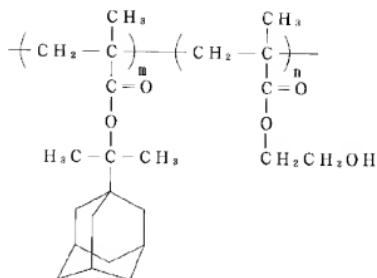
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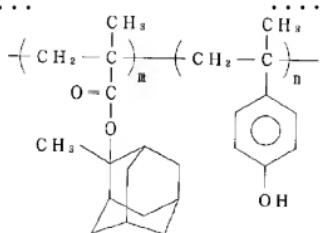
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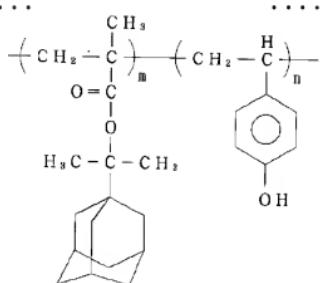




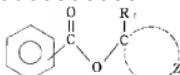
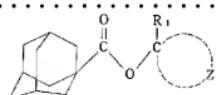
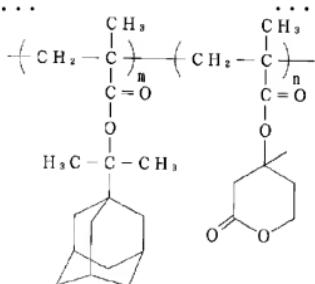
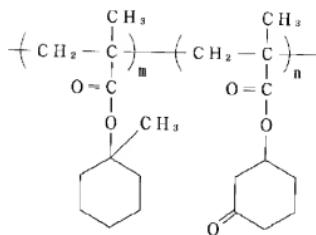
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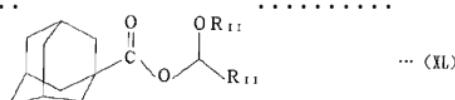
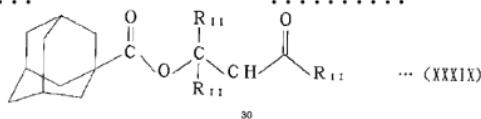
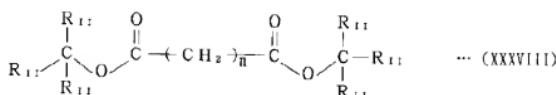
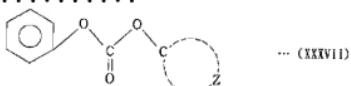
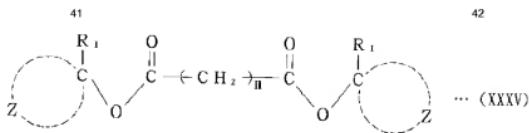


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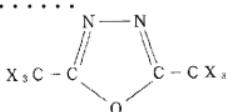
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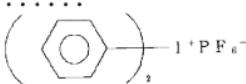




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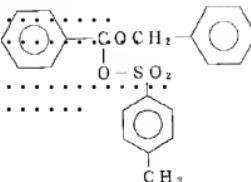


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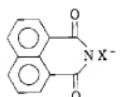
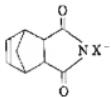


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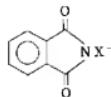
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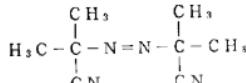
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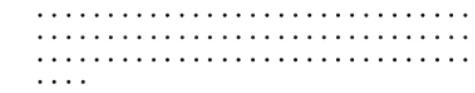
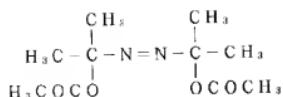
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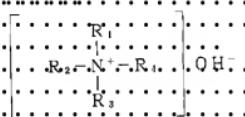


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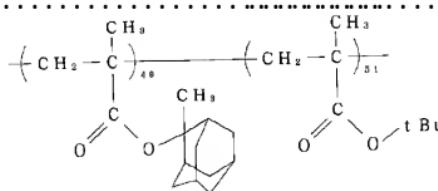


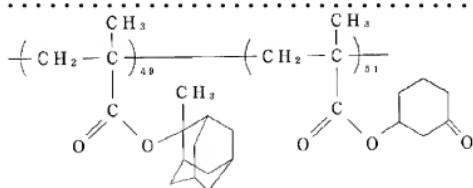
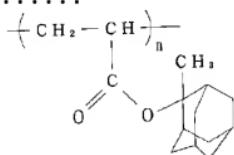
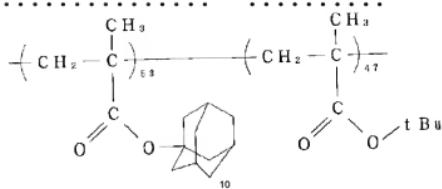
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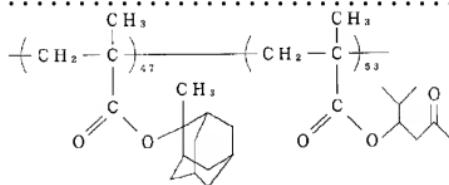


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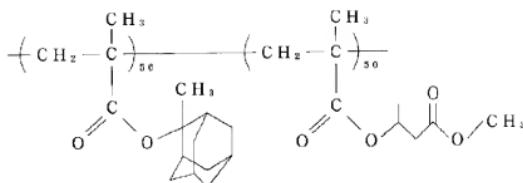
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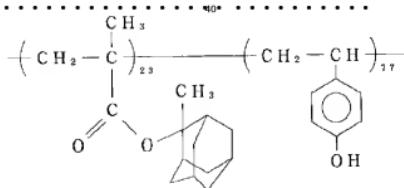
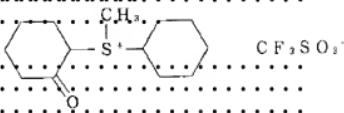
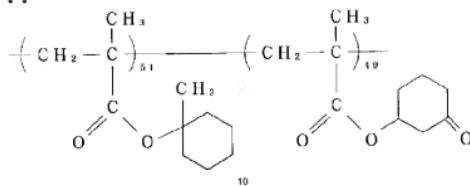
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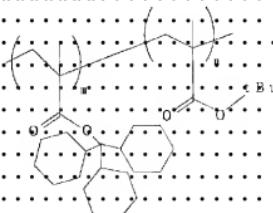
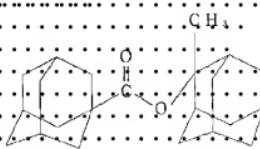
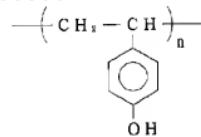
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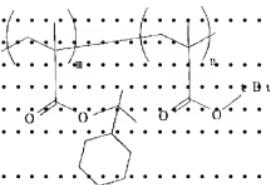
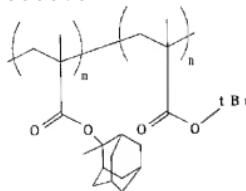
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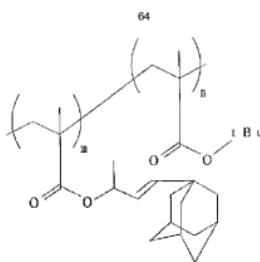
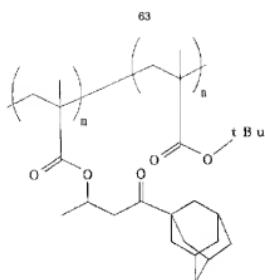
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$$\begin{array}{c}
 \text{C H}_3 \quad \text{C H}_3 \\
 | \quad | \\
 \text{C H}_2 - \text{C} \text{---} \text{C H}_2 - \text{C} \\
 | \quad | \\
 \text{C} \text{---} \text{O} \quad \text{C} \text{---} \text{O} \\
 | \quad | \\
 \text{O} \quad \text{O} \\
 | \quad | \\
 \text{C}_6\text{H}_5 \quad \text{CH}_2\text{CH}_2\text{OH}
 \end{array}$$

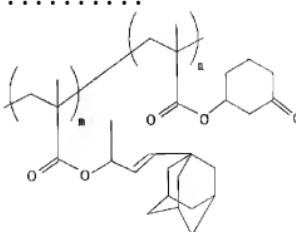
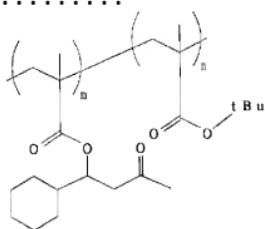




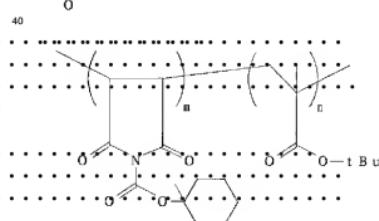
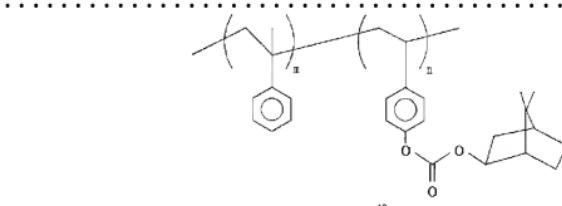
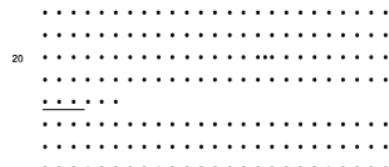
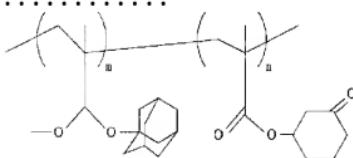
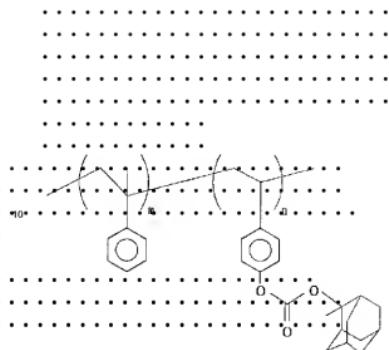
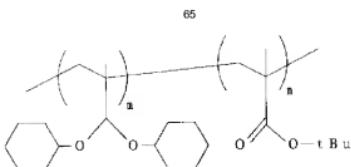


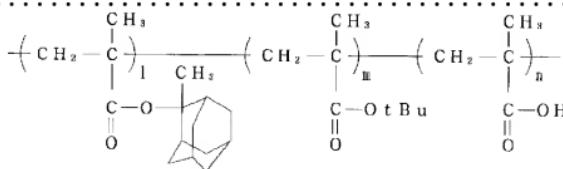
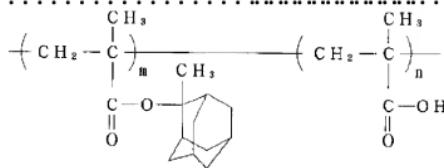


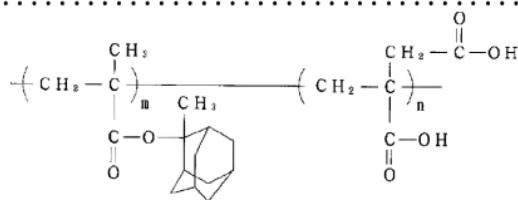
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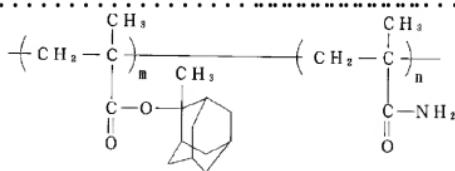
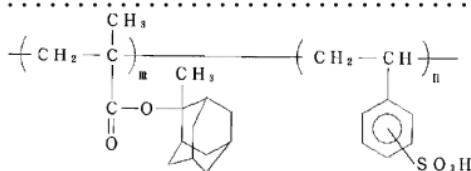


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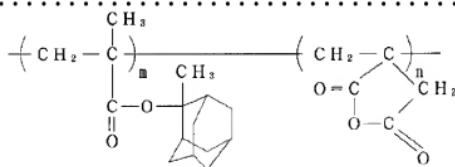
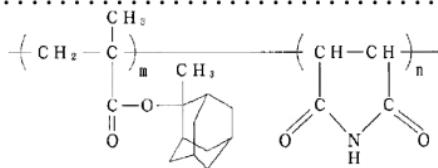


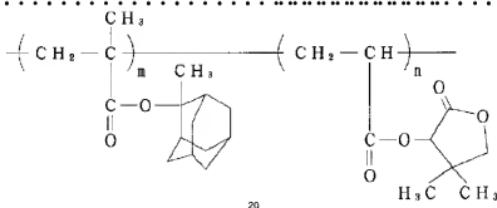


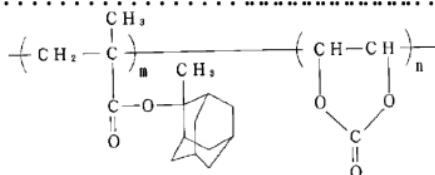
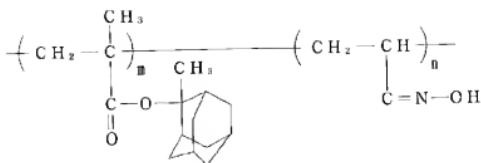


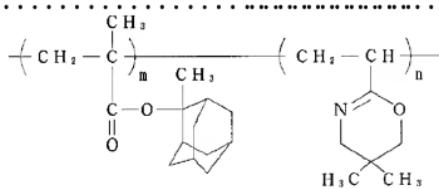
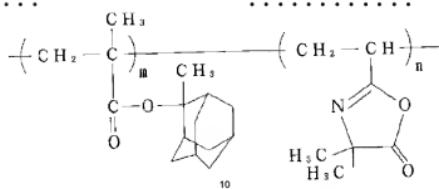


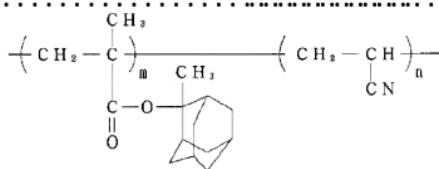
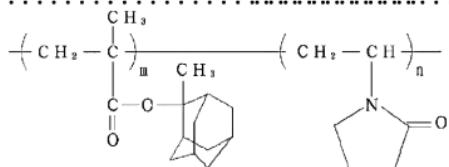
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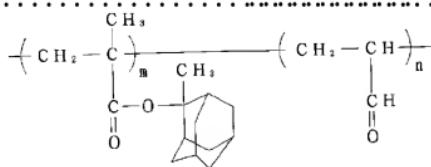
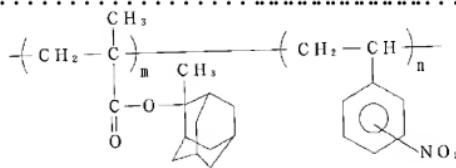


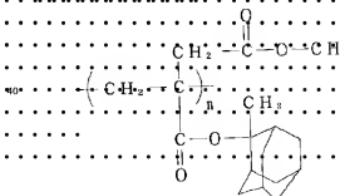
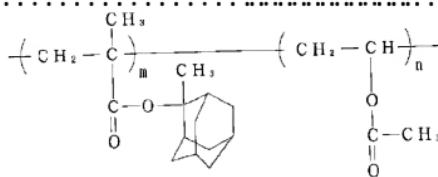


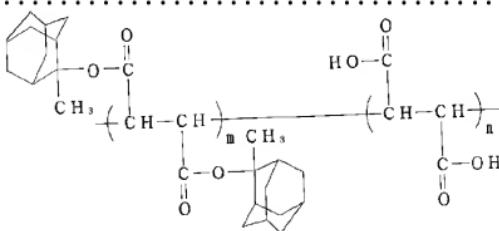


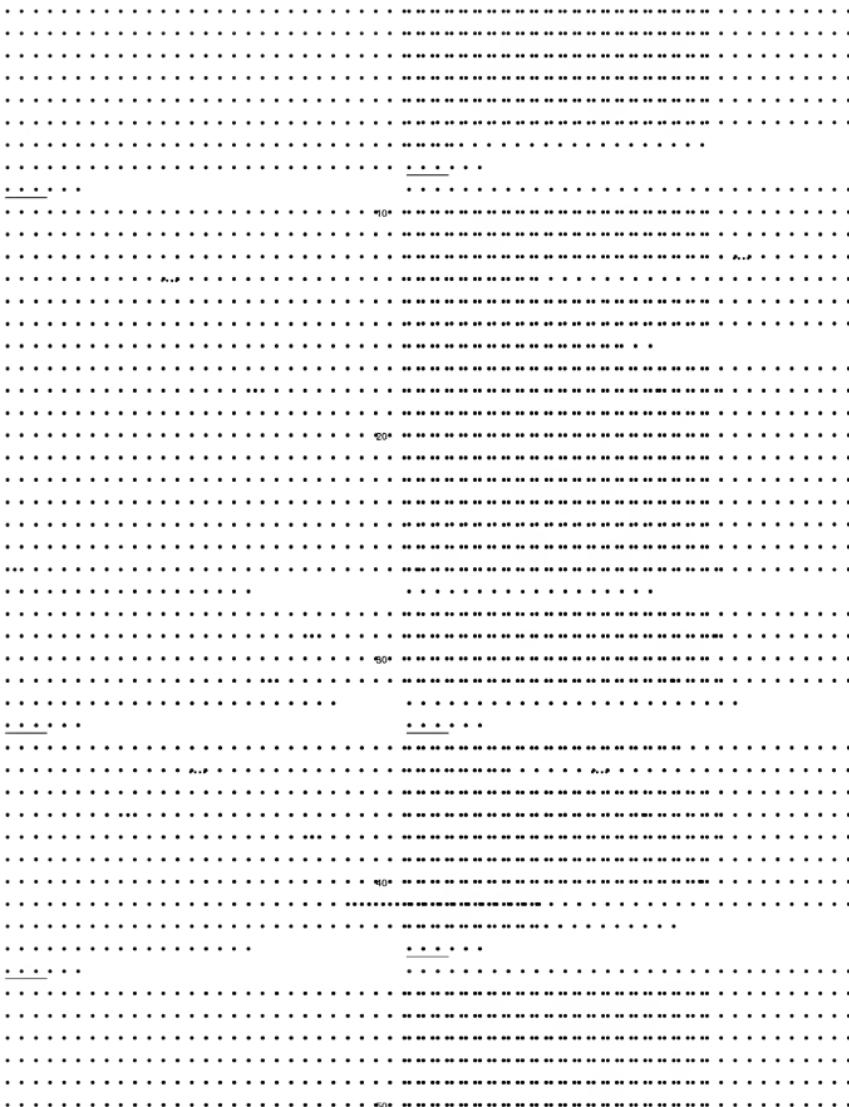


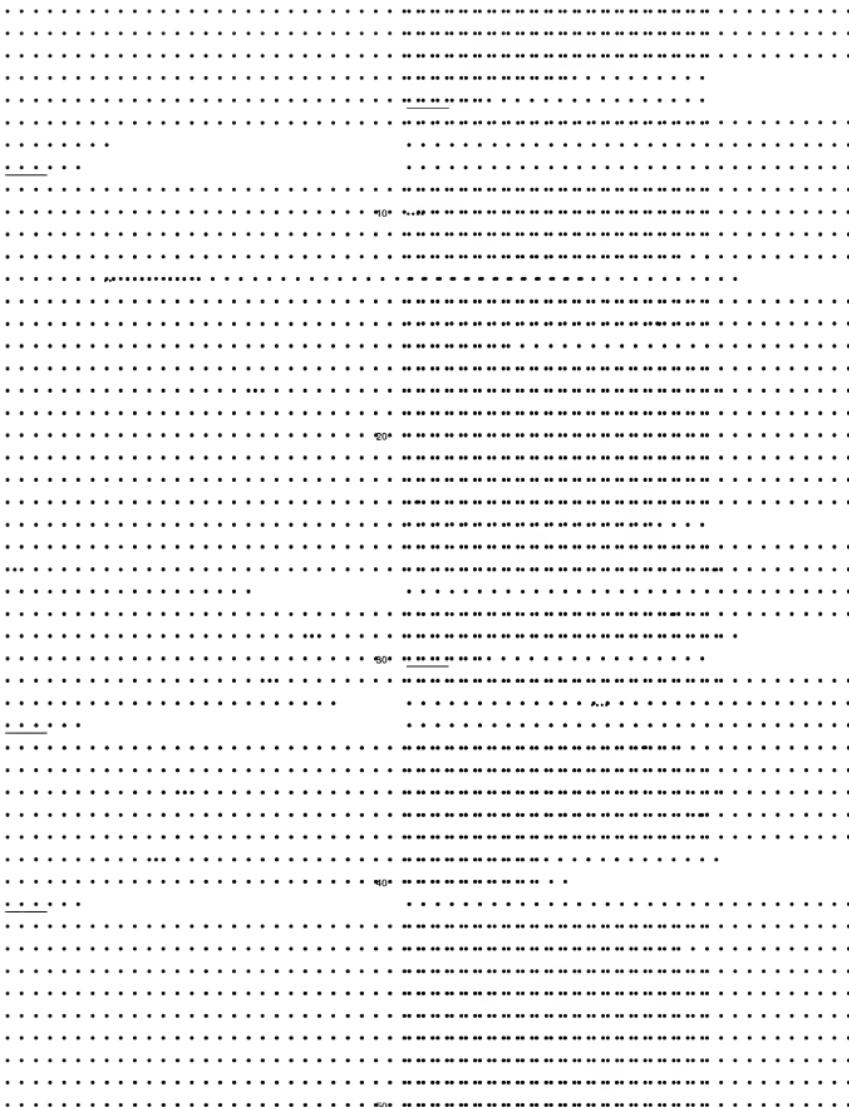












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